



**DANADA VETERINARY HOSPITAL, P.C.**

## **Ear Infections In Dogs**

Bacterial and yeast infections of the ear are extremely common in dogs. The ear has naturally occurring populations of yeast and bacteria at all times. However, when the skin of the ear becomes compromised, these microorganisms overgrow and overwhelm the immune system.

### ***Anatomy of an Ear Infection***

The ear canal is made up of three parts: an external, middle, and inner ear. All parts of the ear can become infected. However, external infections (Otitis Externa) are the most common. The external ear runs from the base of the ear flap to the ear drum. It is the only exposed portion of the ear canal, making it the most susceptible to damage from irritation and environmental factors such as water.

The middle ear sits just behind the ear drum. Infections of this section of the ear (Otitis Media) are less frequent due to the protection that the ear drum provides. However, when external ear disease degrades the ear drum, infection will reach the middle ear. In addition, respiratory and nasal infections can travel through a connection in the back of the throat (auditory tube) and reach the middle ear.

The inner ear is the deepest and most protected part of the ear. It is responsible for hearing and balance. Infections of the inner ear (Otitis Interna) can result from any infection that gets beyond the ear drum. Otitis Interna is the least common type of ear infection.

### ***Symptoms of Ear Infections***

External ear infections usually cause irritation and inflammation of the ear canal and flap. Dogs tend to rub, shake, and scratch their ears persistently. With time, foul-smelling discharge can be seen. In addition, some infections can cause the ear canal to swell shut.

When the middle ear is infected, mucoid discharge (pus) may be seen along with the above symptoms. If the ear drum is severely damaged, hearing loss might be noted.

Inner ear infections usually have the most pronounced symptoms. In addition to all the above signs, inner ear disease can affect the nerve that controls balance. This can lead to neurologic symptoms such as a head tilt, loss of balance (ataxia), and rapid eye movements.

## ***Why is My Dog Always Getting Ear Infections?***

Some infections are the direct result of a traumatic injury to the ear such as dog fights, insect bites, and abrasions. These infections are infrequent and tend to resolve with routine treatments. However, in many cases, ear infections become chronic and recurrent. When this occurs, an underlying cause for the infection should be explored. Among the possible causes are:

- Environmental Allergies
- Food allergies
- Parasites (Fleas, Ear Mites, Mange Mites)
- Tumors/Cysts/Polyps/Foreign Bodies

In addition to the above causes, certain dogs have factors that predispose them to frequent infections. These include:

- Excessive hair in the ear canals
- Lifestyle that includes frequent water exposure (swimming, frequent baths)
- Conformational abnormalities that decrease ear ventilation (Narrow ear canals, large floppy ears, etc.)
- Any condition that can compromise the immune system (hypothyroid, Cushing's, etc.)
- Simultaneous nasal or respiratory infections

## ***How Are Ear Infections Diagnosed?***

Diagnosis is made by examination of the ear with an instrument called an otoscope. The ear canal is 3-4 times deeper than the area that is visible when lifting the ear flap. The otoscope helps us to see deeper into the canal to diagnose parasites, foreign bodies, and other abnormalities such as excessive hair, ruptured ear drums, and tumors.

Next, samples of discharge are taken for microscopic evaluation. These samples help determine if the infection is bacterial or fungal in origin. They also help quantify how severe an infection is, so the appropriate length of therapy can be determined. Sometimes samples are helpful in diagnosis of microscopic parasites such as ear mites.

If a patient presents with a recurrent or long-standing infection, a sterile culture swab may be taken as well. This test is sent to a laboratory to grow the infection and determine if the bacteria are resistant to commonly used antibiotics.

If an underlying cause is suspected, additional testing and/or treatment for that cause may be started concurrently with the ear treatment.

## ***Treatment***

The ear canal is 3-4 times deeper than can be reached with fingers, so proper cleansing is of vital importance. To properly clean an ear, pour cleanser into the canal until it overflows. Grasping the ear at the base, vigorously massage the canal open and closed (This should produce a good sloshing sound.)

After 10-15 seconds, take dry cotton balls and remove the debris from the surface of the ear. (The plunging action of the massage should bring debris from deep in the canal to the surface.)

Once the cleanser has removed as much debris as possible, the appropriate medication can be placed in the affected ear canal. Most dogs will require 6-10 drops of medication. As a safe rule-of-thumb, a dime-sized amount is a reliable estimate of the appropriate dose.

During an infection, cleaning should be done every one or two days depending on the degree of discharge. Medication should be placed daily. This process should continue for approximately 10-14 days, unless instructed otherwise.

In the past few years, long-acting medications have been developed that allow your veterinarian to clean and treat many ear infections with a single dose of medicine. The microscopic evaluation the veterinarian performs helps to determine if this medicine is an appropriate option for your pet. If applied, there is no need to clean or treat the ear at home until the medicine wears off in approximately 30 days. At that time, routine preventative cleanings can be re-established.

### ***When Should Ear Infections Be Rechecked?***

If an infection is severe, your veterinarian may request a recheck to evaluate the progress of treatment after a few weeks. For most routine infections, a recheck is warranted if the debris and redness do not resolve after two weeks, or if symptoms return shortly after treatment is discontinued.

### ***Prevention of Recurrent Ear Infections***

Management of any underlying disease as well as a consistent ear cleaning routine are the best ways to prevent reinfection of the ear. For maintenance, ear cleansing should be done every 1-2 weeks for one month following an infection. If the ears remain normal during that time, frequency of cleaning can decrease to every 2-4 weeks.